## What is a financial instrument?

Let us start by looking at the definition of a financial instrument, which is that a financial instrument is a contract that gives rise to a financial asset of one entity and a financial liability or equity instrument of another entity.

With references to assets, liabilities and equity instruments, the statement of financial position immediately comes to mind. Further, the definition describes financial instruments as contracts, and therefore in essence financial assets, financial liabilities and equity instruments are going to be pieces of paper.

For example, when an invoice is issued on the sale of goods on credit, the entity that has sold the goods has a financial asset - the receivable - while the buyer has to account for a financial liability - the payable. Another example is when an entity raises finance by issuing equity shares. The entity that subscribes to the shares has a financial asset - an investment - while the issuer of the shares who raised finance has to account for an equity instrument - equity share capital. A third example is when an entity raises finance by issuing bonds (debentures). The entity that subscribes to the bonds - ie lends the money - has a financial asset - an investment - while the issuer of the bonds - ie the borrower who has raised the finance - has to account for the bonds as a financial liability.

So when we talk about accounting for financial instruments, in simple terms what we are really talking about is how we account for investments in shares, investments in bonds and receivables (financial assets), how we account for trade payables and long-term loans (financial liabilities) and how we account for equity share capital (equity instruments). (Note: financial instruments do also include derivatives, but this will not be discussed in this article.)

In considering the rules as to how to account for financial instruments there are various issues around classification, initial measurement and subsequent measurement.

This article will consider the accounting for equity instruments and financial liabilities. Both arise when the entity raises finance - ie receives cash in return for issuing a financial instrument. A subsequent article will consider the accounting for financial assets.

## Distinguishing between debt and equity

For an entity that is raising finance it is important that the instrument is correctly classified as either a financial liability (debt) or an equity instrument (shares). This distinction is so important as it will directly affect the calculation of the gearing ratio, a key measure that the users of the financial statements use to assess the financial risk of the entity. The distinction will also impact on the measurement of profit as the finance costs associated with financial liabilities will be charged to the income

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statement, thus reducing the reported profit of the entity, while the dividends paid on equity shares are an appropriation of profit rather than an expense.

When raising finance the instrument issued will be a financial liability, as opposed to being an equity instrument, where it contains an obligation to repay. Thus, the issue of a bond (debenture) creates a financial liability as the monies received will have to be repaid, while the issue of ordinary shares will create an equity instrument. In a formal sense an equity instrument is any contract that evidences a residual interest in the assets of an entity after deducting all of its liabilities.

It is possible that a single instrument is issued that contains both debt and equity elements. An example of this is a convertible bond - ie where the bond contains an embedded derivative in the form of an option to convert to shares rather than be repaid in cash. The accounting for this compound financial instrument will be considered in a subsequent article.

## Equity instruments

Equity instruments are initially measured at fair value less any issue costs. In many legal jurisdictions when equity shares are issued they are recorded at a nominal value, with the excess consideration received recorded in a share premium account and the issue costs being written off against the share premium.

## Example 1: Accounting for the issue of equity

Dravid issues $10,000 \$ 1$ ordinary shares for cash consideration of $\$ 2.50$ each. Issue costs are $\$ 1,000$.

## Required

Explain and illustrate how the issue of shares is accounted for in the financial statements of Dravid.

## Solution

The entity has raised finance (received cash) by issuing financial instruments. Ordinary shares have been issued, thus the entity has no obligation to repay the monies received; rather it has increased the ownership interest in its net assets. As such, the issue of ordinary share capital creates equity instruments. The issue costs are written off against share premium. The issue of ordinary shares can thus be summed up in the following journal entry.

| Dr | Cash | $\$ 24,000$ |  | The gross cash received is $10,000 \times \$ 2.5=$ <br> $\$ 25,000$ but the issue costs of $\$ 1,000$ have to <br> be paid |
| :--- | :--- | :--- | :--- | :--- |
| Cr | Equity <br> Share <br> Capital |  | $\$ 10,000$ | The 10,000 shares issued are recorded at <br> their nominal value of $\$ 1$ each |
| Cr | Share <br> Premium |  | $\$ 14,000$ | The excess consideration received of $\$ 15,000$ <br> $(\$ 1.50 \times 10,000)$ is recorded in share <br> premium but net of the issue costs of $\$ 1,000$ |

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Equity instruments are not remeasured. Any change in the fair value of the shares is not recognised by the entity, as the gain or loss is experienced by the investor, the owner of the shares. Equity dividends are paid at the discretion of the entity and are accounted for as reduction in the retained earnings, so have no effect on the carrying value of the equity instruments.

As an aside, if the shares being issued were redeemable, then the shares would be classified as financial liabilities (debt) as the issuer would be obliged to repay back the monies at some stage in the future.

## Financial liabilities

A financial instrument will be a financial liability, as opposed to being an equity instrument, where it contains an obligation to repay. Financial liabilities are then classified and accounted for as either fair value through profit or loss (FVTPL) or at amortised cost.

## Financial liabilities at amortised cost

The default position is, and the majority of financial liabilities are, classified and accounted for at amortised cost.

Financial liabilities that are classified as amortised cost are initially measured at fair value minus any transaction costs.

Accounting for a financial liability at amortised cost means that the liability's effective rate of interest is charged as a finance cost to the income statement (not the interest paid in cash) and changes in market rates of interest are ignored - ie the liability is not revalued at the reporting date. In simple terms this means that each year the liability will increase with the finance cost charged to the income statement and decrease by the cash repaid.

## Example 2: Accounting for a financial liability at amortised cost

Laxman raises finance by issuing zero coupon bonds at par on the first day of the current accounting period with a nominal value of $\$ 10,000$. The bonds will be redeemed after two years at a premium of $\$ 1,449$. The effective rate of interest is $7 \%$.

## Required

Explain and illustrate how the loan is accounted for in the financial statements of Laxman.

## Solution

Laxman is receiving cash that it is obliged to repay, so this financial instrument is classified as a financial liability. There is no suggestion that the liability is being held for trading purposes nor that the option to have it classified as FVTPL has been made, so, as is perfectly normal, the liability will be classified and accounted for at amortised cost and initially measured at fair value less the transaction costs. The bonds are being issued at par, so there is neither a premium or discount on issue. Thus Laxman initially receives $\$ 10,000$. There are no transaction costs and, if there were, they would be deducted. Thus, the liability is initially recognised at \$10,000.

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In applying amortised cost, the finance cost to be charged to the income statement is calculated by applying the effective rate of interest (in this example 7\%) to the opening balance of the liability each year. The finance cost will increase the liability. The bond is a zero coupon bond meaning that no actual interest is paid during the period of the bond. Even though no interest is paid there will still be a finance cost in borrowing this money. The premium paid on redemption of $\$ 1,449$ represents the finance cost. The finance cost is recognised as an expense in the income statement over the period of the loan. It would be inappropriate to spread the cost evenly as this would be ignoring the compound nature of finance costs, thus the effective rate of interest is given. In the final year there is a single cash payment that wholly discharges the obligation. The workings for the liability being accounted for at amortised cost can be summarised and presented as follows.

|  | Opening <br> balance | Plus income <br> statement finance <br> charge @7\% on the <br> opening balance | Less the <br> cash paid | Closing balance, being the <br> liability on <br> the statement of financial <br> position |
| :--- | :---: | :---: | :---: | :---: |
| Year 1 | $\$ 10,000$ | $\$ 700$ | $($ Nil $)$ | $\$ 10,700$ |
| Year 2 | $\$ 10,700$ | $\$ 749$ | $(\$ 11,449)$ | Nil |

Accounting for financial liabilities is regularly examined in both Paper F7 and Paper P2 so let's have a look at another, slightly more complex example.

## Example 3: Accounting for a financial liability at amortised cost

Broad raises finance by issuing $\$ 20,0006 \%$ four-year loan notes on the first day of the current accounting period. The loan notes are issued at a discount of $10 \%$, and will be redeemed after three years at a premium of $\$ 1,015$. The effective rate of interest is $12 \%$. The issue costs were $\$ 1,000$.

## Required

Explain and illustrate how the loan is accounted for in the financial statements of Broad.

## Solution

Broad is receiving cash that is obliged to repay, so this financial instrument is classified as a financial liability. Again, as is perfectly normal, the liability will be classified and accounted for at amortised cost and, thus, initially measured at the fair value of consideration received less the transaction costs.

With both a discount on issue and transaction costs, the first step is to calculate the initial measurement of the liability.

| Cash received - the nominal value less the discount on issue | $(\$ 20,000$ <br> $\times 90 \%)$ | $\$ 18,000$ |
| :--- | :--- | :--- |
| Less the transaction costs |  | $(\$ 1,000)$ |
| Initial recognition of the financial liability |  | $\$ 17,000$ |

In applying amortised cost, the finance cost to be charged to the income statement is calculated by applying the effective rate of interest (in this example 12\%) to the

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opening balance of the liability each year. The finance cost will increase the liability. The actual cash is paid at the end of the reporting period and is calculated by applying the coupon rate (in this example 6\%) to the nominal value of the liability (in this example $\$ 20,000$ ). The annual cash payment of $\$ 1,200(6 \% \times \$ 20,000=\$ 1,200)$ will reduce the liability. In the final year there is an additional cash payment of $\$ 21,015$ (the nominal value of $\$ 20,000$ plus the premium of $\$ 1,015$ ), which extinguishes the remaining balance of the liability. The workings for the liability being accounted for at amortised cost can be summarised and presented as follows.

|  | Opening <br> balance | Plus income <br> statement <br> finance charge <br> $@$$12 \%$ on the <br> opening <br> balance | Less the cash <br> paid (6\% x <br> $20,000)$ | Closing <br> balance, being <br> the liability on <br> the statement <br> of financial <br> position |
| :--- | :---: | :---: | :---: | :---: |
| Year 1 | $\$ 17,000$ | $\$ 2,040$ | $(\$ 1,200)$ | $\$ 17,840$ |
| Year 2 | $\$ 17,840$ | $\$ 2,141$ | $(\$ 1,200)$ | $\$ 18,781$ |
| Year 3 | $\$ 18,781$ | $\$ 2,254$ | $(\$ 1,200)$ | $\$ 19,835$ |
| Year 4 | $\$ 19,835$ | $\$ 2,380$ | $(\$ 1,200)$ <br> $(\$ 21,015)$ | Nil |
| Total finance costs | $\$ 8,815$ |  |  |  |

Because the cash paid each year is less than the finance cost, each year the outstanding liability grows and for this reason the finance cost increases year on year as well. The total finance cost charged to income over the period of the loan comprises not only the interest paid, but also the discount on the issue, the premium on redemption and the transaction costs.

| Interest paid | $(4$ years $\times \$ 1,200)$ | $=$ | $\$ 4,800$ |
| :--- | :--- | :--- | :--- |
| Discount on issue | $(10 \% \times \$ 20,000)$ | $=$ | $\$ 2,000$ |
| Premium on redemption |  |  | $\$ 1,015$ |
| Issue costs |  |  | $\$ 1,000$ |
| Total finance costs |  |  | $\$ 8,815$ |

## Financial liabilities at FVTPL

Financial liabilities are only classified as FVTPL if they are held for trading or the entity so chooses. This is unusual and only examinable in Paper P2. The option to designate a financial liability as measured at FVTPL will be made if, in doing so, it significantly reduces an 'accounting mismatch' that would otherwise arise from measuring assets or liabilities or recognising the gains and losses on them on different bases, or if the liability is part or a group of financial liabilities or financial assets and financial liabilities that is managed and its performance is evaluated on a fair value basis, in accordance with an investment strategy. In addition, a financial liability may still be designated as measured at FVTPL when it contains one or more embedded derivatives that would require separation.

Financial liabilities that are classified as FVTPL are initially measured at fair value and any transaction costs are immediately written off to the income statement.

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By accounting for a financial liability at FVTPL, the financial liability is also increased by a finance cost and reduced by cash repaid but is then revalued at each reporting date with any gains and losses immediately recognised in the income statement. The measurement of the new fair value at the year end will be its market value or, if not known, the present value of the future cash flows, using the current market interest rates. The interest rate used subsequently to calculate the finance cost will be this new current rate until the next revaluation.

## Example 4: Accounting for a financial liability at FVTPL

On 1 January 2011 Swann issued three year 5\% \$30,000 loans notes at nominal value when the effective rate of interest is also $5 \%$. The loan notes will be redeemed at par. The liability is classified at FVTPL. At the end of the first accounting period market interest rates have risen to $6 \%$.

## Required

Explain and illustrate how the loan is accounted for in the financial statements of Swann in the year ended 31 December 2011.

## Solution

Swann is receiving cash that is obliged to repay so this financial instrument is classified as a financial liability. The liability is classified at FVTPL so, presumably, it is being held for trading purposes or the option to have it classified as FVTPL has been made.

Initial measurement is at the fair value of $\$ 30,000$ received and, although there are no transaction costs in this example, these would be expensed rather than taken into account in arriving at the initial measurement.

With an effective rate of interest and the coupon rate both being $5 \%$, at the end of the accounting period the carrying value of the liability will still be $\$ 30,000$. This is because the finance cost that will increase the liability is $\$ 1,500(5 \% \times \$ 30,000$ - the effective rate applied to the opening balance), and the cash paid reducing the liability is also $\$ 1,500(5 \% \times \$ 30,000$ - the coupon rate applied to the nominal value).

As the liability has been classified as FVTPL this carrying value at 31 December 2011 now has to be revalued. The fair value of the liability at this date will be the present value (using the new rate of interest of $6 \%$ ) of the next remaining two years' payments.

|  | Cash flow | $6 \%$ discount <br> factor | Present value <br> of the future <br> cash flow |  |
| :--- | :---: | :---: | :---: | :---: |
| Payment due 31 December 2012 <br> (interest only) | $\$ 1,500 \times$ | 0.943 | $=$ | $\$ 1,415$ |
| Payment due 31 December 2013 <br> (the final interest payment and the <br> repayment of the $\$ 30,000$ ) | $\$ 31,500 \times$ | 0.890 | $=$ | $\$ 28,035$ |
| Fair value of the liability at 31 <br> December 2011 |  |  |  | $\$ 29,450$ |

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As Swann has classified this liability as FVTPL, it is revalued to \$29,450. The reduction of $\$ 550$ in the carrying value of the liability from $\$ 30,000$ is regarded as a profit, and this is recognised in the income statement. If, however, the higher discount rate used was not because general interest rates have risen, rather the credit risk of the entity has risen, then the gain is recognised in other comprehensive income. This can all be summarised in the following presentation.

|  | Opening <br> balance | Plus income <br> statement <br> finance <br> charge @ $5 \%$ <br> on the | Less the <br> cash paid <br> (5\% x <br> opening <br> balance | Carrying <br> value of <br> the | Fair <br> value of <br> the <br> at the <br> lility | Gain to <br> income <br> statity <br> at the <br> sear end |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| $1 / 1 / 2011$ | $\$ 30,000$ | $\$ 1,500$ | $(\$ 1,500)$ | $\$ 30,000$ | $\$ 29,450$ | $\$ 550$ |

We can briefly consider the accounting in the remaining two years. The finance charge in the income statement for the year end 31 December 2012 will be the $6 \% \times \$ 29,450$ $=\$ 1,767$, and with the cash payment of $\$ 1,500$ being made, the carrying value of the liability will be $\$ 29,717$ ( $\$ 29,450$ plus $\$ 1,767$ less $\$ 1,500$ ) at the year end.

If at 31 December 2012 the market rate of interest has fallen to, say, $4 \%$, then the fair value of the liability at the reporting date will be the present value of the last repayment due of $\$ 31,500$ in one year's time discounted at $4 \%$ (ie $\$ 31,500 \times 0.962=$ $\$ 30,288$ ), which in turn means that as the fair value of the liability exceeds the carrying value, a loss of $\$ 571$ (ie $\$ 30,288$ less $\$ 29,717$ ) arises which is recognised in the income statement.

In the final year ending 31 December 2013 the finance cost to the income statement will be $4 \% \times \$ 30,288=\$ 1,212$, increasing the liability to $\$ 31,500$ before the final cash payment of $\$ 31,500$ is made, thus extinguishing the liability. As you may know from your financial management studies, and as is demonstrated here, when interest rates rise so the fair value of bonds fall and when interest rates fall then the fair value of bonds rises.

The next article will consider the accounting for convertible bonds and financial assets.

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